## 1ar

#### CI: Affs may defend subsets of workers

#### Specific instances prove generics which means I meet

**Cimpian et al 10** (PhDs – Andrei, Amanda C. Brandone, Susan A. Gelman, Generic statements require little evidence for acceptance but have powerful implications, Cogn Sci. 2010 Nov 1; 34(8): 1452–1482)

**Generic statements** (e.g., “Birds lay eggs”) express generalizations about categories. In this paper, we hypothesized that there is a paradoxical asymmetry at the core of generic meaning, such that these sentences have extremely strong implications but **require little evidence to be judged true**. Four experiments confirmed the hypothesized asymmetry: **Participants interpreted novel generics such as “Lorches have purple feathers”** as referring to nearly all lorches, but they judged the same novel generics **to be true** given a wide range of prevalence levels (e.g., **even when only 10% or 30% of lorches had purple feathers**). A second hypothesis, also confirmed by the results, was that novel generic sentences about dangerous or distinctive properties would be more acceptable than generic sentences that were similar but did not have these connotations. In addition to clarifying important aspects of generics’ meaning, these findings are applicable to a range of real-world processes such as stereotyping and political discourse. Keywords: generic language, concepts, truth conditions, prevalence implications, quantifiers, semantics Go to: 1. Introduction **A statement is generic if it expresses a generalization about the members of a kind, as in “Mosquitoes carry the West Nile virus” or “Birds lay eggs”** (e.g., Carlson, 1977; Carlson & Pelletier, 1995; Leslie, 2008). Such generalizations are commonplace in everyday conversation and child-directed speech (Gelman, Coley, Rosengren, Hartman, & Pappas, 1998; Gelman, Taylor, & Nguyen, 2004; Gelman, Goetz, Sarnecka, & Flukes, 2008), and are likely to foster the growth of children’s conceptual knowledge (Cimpian & Markman, 2009; Gelman, 2004, 2009). Here, however, we explore the semantics of generic sentences—and, in particular, the relationship between generic meaning and the statistical prevalence of the relevant properties (e.g., what proportion of birds lay eggs). Consider, first, generics’ truth conditions: **Generic sentences are often judged true despite weak statistical evidence**. **Few people would dispute the truth of “Mosquitoes carry the West Nile virus”, yet only about 1% of mosquitoes are actually carriers** (Cox, 2004). Similarly, **only a minority of birds lays eggs** (the healthy, mature females), **but “Birds lay eggs” is uncontroversial**. This loose, almost negligible relationship between the prevalence of a property within a category and the acceptance of the corresponding generic sentence has long puzzled linguists and philosophers, and has led to many attempts to describe the truth conditions of generic statements (for reviews, see Carlson, 1995; Leslie, 2008). Though generics’ truth conditions may be unrelated to property prevalence (cf. Prasada & Dillingham, 2006), the same cannot be said about the implications of generic statements. When provided with a novel generic sentence, one often has the impression that the property talked about is widespread. For example, if we were unfamiliar with the West Nile virus and were told (generically) that mosquitoes carry it, it would not be unreasonable to assume that all, or at least a majority of, mosquitoes are carriers (Gelman, Star, & Flukes, 2002). It is this paradoxical combination of flexible, almost prevalence-independent truth conditions, on the one hand, and widespread prevalence implications, on the other, that is the main focus of this article. **We will** attempt to **demonstrate empirically that the prevalence level that is sufficient to judge a generic sentence as true is indeed significantly lower than the prevalence level implied by that very same sentence**. If told that, say, “Lorches have purple feathers,” people might expect almost all lorches to have these feathers (illustrating generics’ high implied prevalence), but they may still agree that the sentence is true even if the actual prevalence of purple feathers among lorches turned out to be much lower (illustrating generics’ flexible truth conditions). Additionally, we propose that this asymmetry is peculiar to generic statements and does not extend to sentences with quantified noun phrases as subjects. That is, the prevalence implied by a sentence such as “Most lorches have purple feathers” may be more closely aligned with the prevalence that would be needed to judge it as true. Before describing our studies, we provide a brief overview of previous research on the truth conditions and the prevalence implications of generic statements. 1.1. Generics’ truth conditions Some of the first experimental evidence for the idea that the truth of a generic statement does not depend on the underlying statistics was provided by Gilson and Abelson (1965; Abelson & Kanouse, 1966) in their studies of “the psychology of audience reaction” to “persuasive communication” in the form of generic assertions (Abelson & Kanouse, 1966, p. 171). Participants were presented with novel items such as the following: **Altogether there are three kinds of tribes—Southern, Northern, Central. Southern tribes have sports magazines. Northern tribes do not** have sports magazines. **Central tribes do not** have sports magazines. **Do tribes have sports magazines?** All items had the same critical feature: only one third of the target category possessed the relevant property. Despite the low prevalence, **participants answered “yes” approximately 70% of the time** to “Do tribes have sports magazines?” and other generic questions similar to it. Thus, **people’s acceptance of the generics did not seem contingent on strong statistical evidence,** leaving the door open for persuasion, and perhaps manipulation, by ill-intentioned communicators. A similar conclusion about the relationship between statistical prevalence and generics’ truth conditions emerged from the linguistics literature on this topic (e.g., Carlson, 1977; Carlson & Pelletier, 1995; Dahl, 1975; Declerck, 1986, 1991; Lawler, 1973). For example, Carlson (1977) writes that “**there are many cases where […] less than half of the individuals under consideration have some certain property, yet we still can truly predicate that property of the appropriate bare plural**” (p. 67), **as is the case with “Birds lay eggs” and “Mosquitoes carry the West Nile virus” but also with “Lions have manes**” (only males do), “Cardinals are red” (only males are), and others. He points out, moreover, that there are many properties that, although present in a majority of a kind, nevertheless cannot be predicated truthfully of that kind (e.g., more than 50% of books are paperbacks but “Books are paperbacks” is false). Thus, acceptance of a generic sentence is doubly dissociated from the prevalence of the property it refers to—not only can true generics refer to low-prevalence properties, but high-prevalence properties are also not guaranteed to be true in generic form

#### Debate solves arbitrary linguistic intuitions—we can determine the most predictable interp based on factors like clash and limits. Semantics are a floor not a ceiling—if we have a sufficiently predictable interpretation of the topic then division of ground is more important.

#### Standards:

#### 1] Clash—allows us to go in-depth on particular parts of the literature which allows for more nuanced debates because different workers and their squo strike policy are different

#### 2] Aff ground—No Advantage applies to all workers because each one has different strike policies – i.e. other workers can strike under NLRA, but not agricultural workers

#### 3] Pics are comparatively worse—a) It forces 1AR restart mooting the 1AC and creating a 13-7 time skew b) negs have generics like the Cap K and Innovation DA but affs don’t have any vs pics

#### 4] Overlimiting: They make whole res the only topical aff which is devastating vs specific negs

#### 5] Functional limits check – only workers that don’t have a strong right to strike in the squo are viable affs

#### 6] Reasonability – good is good enough and key to avoid substance crowdout – otherwise leads to a race to the top which detract from the fairness they try to preserve

Nlrb

#### 1] Perm do the counterplan – they’re on the wrong side of this debate – 6 warrants

#### a] normal means – 1AC Reilly solvency evidence talks about the NLRA and courts implementing it, not congress – even if by some obscure definition, amend requires Congress, prefer spirit over text

#### b] normal means – NLRB is the US agency for regulating strikes and directly monitors the NLRA which disproves 1NC ev.

INC, ND, The NLRB, Encyclopedia entry, URL: <https://www.inc.com/encyclopedia/national-labor-relation-board-nlrb.html>, KR //recut DD AG

The NLRB was created in 1935 by Congress to administer the National Labor Relations Act (NLRA). The NLRA is the law that governs relations between labor unions and employers whose operations involve interstate commerce. Though there are other federal and state laws which also protect the rights of employees, such as the Fair Labor Standards Act (FLSA), the NLRA is the Act specifically tied to the NLRB and to union organization.

#### c] Ought isn’t immediate

English Grammar 10 [“Must and Ought to”; English Grammar; August 16, 2010; <https://www.englishgrammar.org/must-and-ought-to/> //BWSWJ] // recut DD AG

Ought expresses ideas such as duty, necessity and moral obligation. It is not as forceful as must, but it is stronger than should. You ought to be punctual. We ought to help the poor. You ought to visit your friends once in a while. Ought generally points to present and future time. It can point to past time when it is followed by the perfect infinitive (have + past participle).

#### **d]** sovereignty -- the NLRB is normal means since they have the authority to change the NLRA, if not then the cp doesn’t pass with enough weight.

#### Low growth and high inflation now

Bloomberg, 10-19 [Bloomberg Economics, "It’s Not Stagflation, but It’s Not Good Either," Bloomberg, 10-19-2021, https://www.bloomberg.com/graphics/2021-q4-gdp-nowcast-october/, accessed 10-23-2021] //DD AG

From Hot Vax Summer to Winter of Discontent—Stagflation-Lite Could Rock the Global Recovery

Stagflation isn’t quite the word. But for a world economy still trying to find its post-pandemic footing, the combination of lower growth and higher inflation evident in the latest readings from Bloomberg Economics’ nowcasts still isn’t good news.

Across the U.S., Europe and Asia, the nowcasts are flagging a slowdown in the recovery, with activity still some way short of the pre-pandemic trend. More troubling, in many major economies, inflation looks set to stay stubbornly above central banks targets.

In the U.S., after a delta-dampened third quarter, the latest nowcast readings are signaling lackluster performance in the fourth. Compounding the difficulties, inflation is set to stay lodged at a high level.

In China, under the accumulated weight of the Evergrande default, power shortages, and delta risks, growth is slumping into 2022. The early signs from the nowcast point to a fourth quarter expansion of just 4.3% year on year — a long way below the pre-Covid trend of 6%.

For the U.S. — and other advanced economies in a similar position — the blow to supply that’s taking the edge off growth whilst pushing inflation higher is an unwelcome combination that leaves central banks with no easy answers.

“A hot vax summer risks drifting into a winter of discontent” said Bloomberg economists Bjorn Van Roye and Tom Orlik. “With millions still out of work and elevated inflation, central banks are facing stagflation-lite.”

From U.S. retail sales to China factory output, Bloomberg Economics’ nowcasts unite hundreds of data points to provide a high frequency read on the pace of growth and level of inflation across major economies ahead of the official data.

The latest readout for most major economies shows output poised to end the year still some distance short of the pre-Covid trend and — in some cases — moving in the wrong direction.

In normal times, that slack in the economy would mean inflation remains subdued. In the upside-down world of the Covid recovery, that’s not the case. Supply shortages, port congestion, and rising energy prices mean that even as output remains below potential, inflation in many countries is above central banks’ targets.

In the U.S., inflation is poised to end the year above 4% — more than double the Fed’s 2% objective. In the U.K. and euro area, the nowcasts point to fourth quarter CPI readings above 3%. The picture in China looks a little different. Factory gate price gains are sky high. So far, though, consumers haven’t suffered a sticker shock in the shops.

For the world’s biggest central banks, a recovery losing momentum and inflation elevated means a complicated situation. Withdrawing stimulus to tame inflation would add another drag to the recovery when millions are still out of work. Supporting growth by keeping stimulus in place risks sending prices onto an upward spiral.

So far, the Federal Reserve and the European Central Bank are attempting a balancing act — signaling heightened vigilance on inflation without taking premature steps to tighten. The Bank of England, meanwhile, has a more hawkish tilt, flagging the possibility of a rate hike by year end. If price gains stay high, the Fed and ECB will face the same tough decision.

In China, the central bank faces a different trade off — between supporting growth with easier policy and tamping down risks of a credit bubble with tighter. The latest signs suggest it is growth that will be the priority. Bloomberg Economics’ Chief Asia Economist Chang Shu expects a cut in the reserve requirement ratio — freeing up funds for banks to lend — before year end.

In other emerging markets, central banks don’t have that luxury. Brazil, Mexico and Russia have already embarked on their tightening cycles and have further to go. In Turkey, acting on instructions from President Erdogan, the central bank is attempting to defy economic logic with a cut despite high inflation. The falling lira shows the price of politically motivated monetary policy.

## 1ac

#### Plan text: The United States ought to recognize an unconditional right to strike for agricultural laborers.

#### The plan extends the definition of ‘employee’ in the National Labor Relations Act to include agricultural laborers. Squo NLRA fails to protect farmer’s rights to strike – plan amends the NLRA to collectively bargain

**Reilly, 11**, Penn State Law, “Agricultural Laborers: Their Inability to Unionize Under the National Labor Relations Act”, Penn State: Masters of Science, JD Law, URL: <https://pennstatelaw.psu.edu/_file/aglaw/Publications_Library/Agricultural_Laborers.pdf>, 2011 + since most recent citation is from then, KR

**The NLRA gives workers “freedom of association, self-organization, and designation of representatives of their own choosing” in order to equalize the bargaining power** between employers and employees in the hopes of limiting the interruptions to the free flow of commerce.10 **The statute covers a large number of workers based on the broad definition of “employee,”11 but excludes from coverage all agricultural laborers**.12 The NLRA does not define who these agricultural laborers are that are excluded from the right to organize, but rather Congress has instructed the National Labor Relations Boards (NLRB)13 in the annual Appropriations Act that in determining who is an agricultural laborer excluded from the NLRA, to rely on the definition of “agriculture” **found in the Fair Labor Standards Act (FLSA).14 Agriculture in the FLSA is defined as “farming in all its branches ... and any practices ...** performed by a farmer or on a farm as an incident to or in conjunction with such farming operations...”15 The definition also lists specific activities to further define what would specifically be considered agricultural work.16 Therefore, workers whose responsibilities are contained in the FLSA’s definition of “agriculture” are excluded from the right to organize and form unions under the NLRA.

The reasoning behind this exclusion is somewhat vague, especially considering that the bill originally proposed in the Senate did not exclude agricultural laborers from the definition of “employee.”17 There is not much mentioned about the agricultural exclusion because of the statute’s primary focus on addressing problems in the industrial sector. There is, however, a debate from in the House addressing the agricultural laborer exemption,18 where an argument was made that **agricultural laborers should be included because they needed the same protections as industrial** workers. Agricultural labor issues were brought to light in 1935 after governmental investigations into child labor issues and the lack of clean water provided for such workers.19

In response, **two possible reasons were briefly mentioned that may explain why agricultural laborers were excluded: first, in regions like the Midwest, farms are mostly family farms and should not be within the scope of the NLRA,** and second there was a concern that Congress did not have jurisdiction over agricultural workers because it was questionable whether such workers were engaged in interstate commerce.20 Many commentators believe that it was the former argument that led to the exclusion of agricultural workers from protection under the NLRA. Another possible reason for this exclusion as presented by some commentators is that the larger farms lobbied to have their workers excluded from the NLRA.21 While not expressly stated, the most likely explanation is that Congress wanted to protect the family farmer from having to pay higher wages that unions would inevitably demand of the employers.22 Realizing that agriculture was important to the entire nation, Congress wanted to shield this industry from unionization, and wanted to protect the family farmer from having to pay what they could not afford. Congress did not think it necessary to equate the family farmer with big business.

The broad definition of “agriculture” under the FLSA would seem to exclude from the NLRA any worker who is employed by any agricultural entity. This is not the case, however, because **the Supreme Court has adopted a two-part test to determine if an employee is in fact an agricultural laborer excluded from the NLR**A.23 An agricultural employee will be excluded from the right to organize if he or she is engaged in either primary or secondary farming. The Supreme Court has taken the FLSA definition of agriculture and essentially limited its application based on a strict application of the statutory language. Primary farming are those tasks specifically referred to in the statutory definition of “agriculture” such as “cultivation and tillage of the soil [and] dairying.”24 The rest of the definition is considered secondary farming, and therefore a worker is an agricultural laborer if the work performed is of the type that would be performed “by a farmer or on a farm as an incident to or in conjunction with such farming operations.”25

In one of the more recent cases to address the question of who is considered an agricultural employee, the Supreme Court in Holly Farms Corp. v. N.L.R.B. upheld the determination made by the NLRB that workers on live-haul chicken crews do not engage in agricultural labor and therefore are not subject to the agricultural exception from the NLRA.26 The responsibility of the live-haul crew is to enter the farms of independent contractors who raise chickens supplied by Holly Farms; the chickens are then caught and caged by nine chicken catchers, moved by a forklift operator onto a truck to be transported by a truck driver to the processing plant.27 These live-haul crews were not engaged in primary farming because primary farming would have been the actual raising of the poultry, which was the responsibility of the independent contractors, not the live- haul crews.28

The court then focused on whether these live-haul crews were engaged in secondary farming. In doing so, the court immediately found that that the work performed by the live-haul crews were not of the kind “performed by a farmer” because Holly Farms gave up its farmer status as soon as the chicks were delivered to independent contractors for raising.29 As a result of this determination, the truck drivers were not considered agricultural laborers and were therefore not part of the agricultural exception to the NLRA and were able to unionize.30

The court then looked to whether the chicken catchers and forklift operators were engaged in work “on a farm as an incident to or in conjunction with” raising poultry.31 The Supreme Court found that neither the chicken catchers nor the forklift operators “worked on a farm” because the work these employees performed were part of Holly Farms’ poultry processing operations and was not of the type of work contemplated to be included in the statutory definition of “farming.”32 The Supreme Court adopted the reasoning of the NLRB in deciding that the catchers and forklift operators were not performing work “incident to or in conjunction with” the farming operations of the independent contractors.33 In doing so, the Supreme Court decided that it was more important to look at the status of the employer as a farmer rather than where the laborer carried out the responsibilities of the job he or she was hired to perform. Because, as previously determined, Holly Farms was not considered a farmer by the time the live- haul crews went in to catch the chickens, the catchers and the forklift operators were not engaged in secondary farming as defined in the FLSA.34 This meant that all the members of the live-haul crews were not agricultural laborers and therefore all had the right to organize under the NLRA.

The Supreme Court limited the applicability of the definition of “agriculture” in Holly Farms and in doing so opened up the possibility that more workers employed by large, vertically integrated employers would be able to organize.35 By taking the approach to look at the status of the employer rather than where the work is performed, the Supreme Court broadened the already broad definition of “employee” under the NLRA. More employees working for these vertically integrated employers will be able to experience the protection of the NLRA that has been open to industrial workers since the act was first passed in 1935. The impact of the Holly Farms decision is for courts to engage in an in depth analysis before deciding whether a worker is an agricultural laborer not protected by the NLRA. Switching the focus to the status of the employer rather than where the employees are performing their responsibilities will ensure greater protection for workers and a broader reach of the NLRA.

While the definition of “employee” has expanded to include some employees who are employed by agricultural employers, **there is still the exception for agricultural laborers included in the statute and therefore there are still many workers who are unable to form unions.** These may be the **workers that need the most protection because they are the field workers who are subjected to abuse, poverty and hazardous working conditions.36** Many commentators would like to see **the NLRA extended to include agricultural laborers**. The main advantage to **extending the definition of “employee” to include agricultural laborers under the NLRA is that the statute has been in existence for many years, and most of the challenges that would be brought up with respect to agricultural laborers attempting to unionize have most likely already been resolved in other employment sectors allowing the NLRB and courts to rely on precedent. This will make application of the statue to the agricultural laborers consistent with other employment sectors. Reliance on precedent would lead to predictable outcomes when labor disputes arise.** Agricultural laborers still have a ways to go before they will be able to reap the benefits of the NLRA; but, if this were to happen, **agricultural laborers would be able not only to unionize and have their association protected, but also would have the advantage of being able to rely on others with experience and knowledge of the NLRA and its intricacies**.

### Advantage 1 - Yield

#### Farmer’s yield is nearing an all-time low – government support doesn’t help the most needy and isn’t a long term solution

**Farm-Aid, 20,** 9/14/20, “Understanding the Economic Crisis Family Farms are Facing”, 2Farm Aid works with local, regional and national organizations to promote fair farm policies and grassroots organizations coordinating campaigns designed to defend and bolster family farm-centered agriculture. RL: <https://www.farmaid.org/blog/fact-sheet/understanding-economic-crisis-family-farms-are-facing/>, KR

**EVEN BEFORE COVID**-19**, FARM FAMILIES HAD NEGATIVE FARM INCOME**

Things have **been bad in farm country for a while. Between 2013 and 2018, farmers experienced a nearly 50% drop in net farm income as the prices for corn, wheat, dairy, beef and other farm products crashed**. While net farm income rose by 3% in 2019, government payments accounted for all of that increase (namely, via the trade bailout program). Without it, 2019 delivered farmers their second lowest income since 2013.[13]

As for 2020, while the U.S. Department of Agriculture (USDA) is forecasting a $19 billion (or 22.7%) increase in net farm income this **year, government payments like trade bailouts and federal COVID-19 relief programs account for 36% of net farm income** — the highest share since 2001 and the eighth highest share since The Great Depression.[14] Without the $22.4 billion provided in government payments, net farm income in 2020 would be well below the sector’s average from 2000 to 2019.[15] What’s more, the vast majority of payments flowed to the very largest farms. CNBC reports that the top 5% of trade bailout recipients received nearly half of all $28 billion paid in 2018 and 2019.[16]

Perhaps more troubling is USDA’s pre-pandemic data. In February, **USDA forecast** 2020 median farm household income at -$1,840 — **meaning that farm households would lose money from the farm.[17] More recent USDA data suggests a slightly better median income level,[18] presumably from high levels of government payments. But even these sector-wide income numbers likely mask severe distress in many parts of farm country, as many farmers who have been squeezed by years of low income did not benefit from federal payments**. Most farmers rely on off-farm jobs to feed their families, secure health insurance, and keep their farms afloat. Given the pandemic’s broader economic impacts, which arrived after farmers have had to dig into their savings for the better part of the last decade, **droves of farms are at risk of going under in the next year.**

FARM CREDIT CONDITIONS WEAKEN

Farmers rely heavily on credit to buy the seeds, fertilizer, machinery, livestock and other inputs that keep their farms running. Because most farmers require operating loans at the start of each season, a critical aspect of a farm’s financial health relates to its ability to make loan payments on time. Economists utilize various solvency measures to measure this, including the debt-to-asset ratio, debt-to-equity ratio and equity-to-asset ratio. All of these measured weakened for the eighth consecutive year in 2020. **As farm debt continues to rise, the sector’s risk of insolvency in 2020 is at its highest level since 2002**.[19] The following trends reveal weakening credit conditions for farmers and ranchers in today’s strained economy:

**Farmers struggle to make loan payments. Farm loan delinquency rates are rising.** The Federal Reserve Bank of Kansas City, which covers Colorado, Kansas, Missouri, Nebraska, New Mexico, Oklahoma and Wyoming, reports that the volume of delinquent farm real estate and operating loans increased by about 17% and 13%, respectively, over the past year.[20] Meanwhile, the Federal Reserve Bank of Chicago, covering Illinois, Indiana, Iowa, Michigan and Wisconsin, reports the share of farm loans with “major” or “severe” repayment problems is now at 8.3% — a level not seen since 1988.[21]

The 1980s all over again? Pre-COVID-19, total farm debt was estimated to hit a record $425 billion, just shy of the 1981 peak of $440 billion.[22] Since 2014, real estate debt has been rising to historic levels, potentially indicating not just rising land values, but farmers refinancing higher-interest loans or other debt into farm real estate. **In a time of persistently low farm income where farmers are defaulting on loans, this trend places a lot of farmland at risk of liquidation.[23]**

Growing demand for credit: **If farmers can’t secure affordable and timely credit, they face an economic uncertainty that threatens the survival of their farms. Several bankers are reporting growing demand for loans**, yet significant decreases in both the number and the size of agricultural loans in their portfolios.[24]

While economists and lenders note that federal relief has helped farmers navigate these conditions, many remain concerned that **without more intervention, a wave of foreclosures will strike farm country. These conditions are challenging for all farmers, but beginning farmers, smaller and midsized farmers, as well as other disadvantaged farmers in particular continue to struggle.**

#### The aff is key to increase incentives to farm: it increases wages, sets safe living conditions, AND helps farmers expand products

**Reilly, 11**, Penn State Law, “Agricultural Laborers: Their Inability to Unionize Under the National Labor Relations Act”, Penn State: Masters of Science, JD Law, URL: <https://pennstatelaw.psu.edu/_file/aglaw/Publications_Library/Agricultural_Laborers.pdf>, 2011 + since most recent citation is from then, KR

**The rate of pay agricultural laborers earn in return for their work would increase if these workers were able to organize and engage in collective bargaining with their employers.** **Agricultural workers in 2008 made between $8.64 per hour and $13.02 per hou**r.50 The hourly wage is relatively low, especially when **compared to other occupations with the ability to unionize that require similar training and working conditions**. For example**, construction laborers in 2008 earned between $10.80 and $14.95 per hour51 and textile, apparel and furnishing workers earned between $9.14 and $18.15 per hour**.52 While there is a wide range of earnings for anyone entering these three professions, **the two professions that are able to unionize earn more per hour on a national level than the agricultural workers who are exempted form organizing under the NLRA**. The low earnings of agricultural laborers as compared to other laborers supports a finding **that the NLRA would benefit agricultural laborers and are the type of workers that were meant to be extended the right to organize. If agricultural laborers were afforded protection under the NLRA to engage in collective bargaining, the likely result would be that bargaining representatives would be able to negotiate with agricultural employers for higher wages** that would lead to less of an earnings gap between agricultural laborers and laborers in other industries.

There is one major similarity between the construction industry and the agriculture industry that would seem to tip the scales in favor of affording agricultural laborers the right to unionize under the NLRA. **That is that both industries hire seasonally.**53 The seasonal nature of agricultural work is often cited as a reason against unionization, but with the similarity in the construction industry and the ability of those workers to unionize, the seasonal nature of agricultural work should be a factor in considering whether or not to include these workers under the NLRA, but is not itself conclusive. If seasonal workers in other industries are able to unionize, the seasonal nature of agricultural work should not be a major point of opposition to allowing agricultural laborers the right to collectively bargain.

**Agricultural laborers are also subject to harsh conditions because of the work that they perform and should be able to organize under the NLRA in order to bargain with their employers for better working conditions**. Agricultural laborers are **not always provided with access to clean drinking water nor are there typically adequate restroom facilitie**s for these workers to use.**55 Unions can help workers to gain access to sanitary facilities and clean drinking water by bargaining for these necessities with the employers.**56 By making these issues part of **a collective bargaining agreement, unions will be able to hold employers contractually liable to follow such conditions** and will thereby improve the conditions of employment for agricultural laborers who would otherwise be subject to sub-standard facilities.

Another hazardous working condition that arises for agricultural laborers **is the exposure to pesticides.** Agricultural laborers may be exposed to pesticides that are carcinogens or other pesticides that affect the endocrine and/or hormone systems.57 Agricultural laborers, especially those who apply pesticides, are at a greater risk of acute pesticide poisoning which many times is more prevalent than it needs to be because agricultural employers do not take the kinds of precautions necessary to prevent pesticide poisoning.58 **Unions again can aid agricultural laborers by limiting such exposure through a collective bargaining agreement because unions would be able to bargain for certain safety precautions to be taken** before workers are able to spray pesticides and can also ensure that safety gear is provided before spraying commences. Inadequate facilities and pesticides are two examples of the hazardous conditions that agricultural laborers are exposed to that could be cured through the right to unionize and collectively bargain with employers. Unions would be able to protect workers from such sub-standard conditions which in turn would lead to less illness and disease that agricultural laborers would be subjected to and would increase productivity on farms because field workers will not be slowed by sickness and would be able to work more as a result.

Further, “farmers, planters, ranchmen, dairymen, nut or fruit growers” are able to form associations for the mutual benefit of all members.59 These **associations allow their members to work collectively in preparing their products for market**.60 These producers are also able to form cooperatives to market their products and **maintain the “bargaining position of individual farmers” in order to prevent adverse consequences of overcrowding the market**.61 These agricultural producers are free to engage in concerted activity for the mutual protection of the association’s members, but agricultural laborers are exempt from asserting these same rights.62 **Agricultural producers are therefore able to become even stronger entities, further widening the differences in the bargaining positions between producers and agricultural laborers**. The unionization of agricultural laborers would better equalize the bargaining position on each side affording laborers the protections they need against agricultural employers as they become more powerful through associations.

#### 2 Distinct links:

#### 1] Productivity – Wages increase consumer spending AND create economic value

**Jayachandran, 20**, 6/18/2020, New York Times, “How a Raise for Workers Can Be a Win for Everybody”, Seema Jayachandran is an economics professor at Northwestern University, URL:<https://www.nytimes.com/2020/06/18/business/coronavirus-minimum-wage-increase.html>, KR

**Two new studies show that giving pay raises to low-wage workers is good for consumers, too**. That finding could add momentum to efforts to help grocery store clerks, nursing home workers and delivery drivers who are being paid a minimum wage despite their efforts being so essential during the current pandemic. The new research shows that **raising the minimum wage improves workers’ productivity, which translates into businesses offering higher-quality service. Because many customers are willing to pay more when quality improves, a company can raise its prices without losing sales volume. That means that profits need not suffer even though employee salaries increase.**

Moreover, **because companies are getting better performance from workers in return for paying them more, a higher minimum wage does not necessarily lead to fewer jobs. With a more productive work force, more economic value is being created and there is more money to go around**, so a higher paycheck for one person does not imply another person’s loss.

The federal minimum wage of $7.25 an hour has not increased since 2009, though Democrats in the House of Representatives have tried to raise it. State and local governments can set their own minimum wage, provided that it is above the federal rate. For example, Ohio’s minimum wage is $8.70 an hour and New York state’s is $11.80. San Francisco’s is $15.59 an hour.

The two new studies, one focused on nursing homes and the other on department stores, looked at the effects of minimum wage changes made at various levels of government. While they are both still working papers and have not appeared in scholarly journals, they were conducted rigorously, by my estimation, and the evidence they offer deserves consideration in the debate on the minimum wage, particularly during our current health and economic crises.

The nursing home study, by the economist Krista Ruffini, a visiting scholar at the Minnesota Federal Reserve, has direct implications in the current pandemic. The improvements in quality it found may be a very a big deal: They imply fewer medical complications and, perhaps, a longer life for patients.

Ms. Ruffini analyzed hundreds of increases in the minimum wage across the United States from 1990 to 2017. In each case, she compared employment in neighboring counties that suddenly had different minimum wage levels.

Her method expands on a landmark study by David Card, an economist at the University of California, Berkeley, and Alan Krueger, the former presidential adviser and Princeton economist, who found no drop in fast-food employment when New Jersey raised its minimum wage in 1992 above the level paid across the state line in Pennsylvania.

Similarly, Ms. Ruffini found little change in employment levels in nursing homes. Many employees were paid the minimum wage or somewhat more than that. Even in cases of the workers — nursing assistants — who had been paid more than the minimum wage, an increase in that base wage rippled through the labor market and still raised their salaries.

Rivian edges closer to an I.P.O., seeking a valuation above $50 billion.

PG&E says it faces a federal inquiry and $1.15 billion in losses over the Dixie fire.

The Biden administration will publish vaccine mandate rules ‘in the coming days.’

Ms. Ruffini’s most startling finding was that higher minimum wages reduced mortality significantly among nursing home residents. Her research suggests that if every county increased its minimum wage by 10 percent, there could be 15,000 fewer deaths in nursing homes each year, or about a 3 percent reduction.

How did pay increases translate into better patient health and longer lives? It appears that with better pay, jobs in nursing homes became more attractive, so employee turnover decreased. Patients benefited from more continuity in their care.

In addition, **the better paid employees may have simply worked harder, perhaps because they cared more about holding onto their jobs. Economists say they have been paid an “efficiency wage”: Employees become more productive when their wages are higher.**

The higher wage may also have **attracted more skilled or industrious people to the job,** but this seems to account for at most a small portion of the improvements in patient health.

#### Prefer the only empirical study from a country

**Katovich, Maia, 18**, 1-4/2018, “The relation between labor productivity and wages in Brazil:”, Scielo Brazil, University of Wisconsin-Madison, Madison, Wisconsin, Universidade de Campinas, Campinas, São Paulo. URL: <https://www.scielo.br/j/neco/a/QR5hfyMfL9c3gwQSGGcRyHD/?lang=en>, KR

**In Brazil, real wages grew significantly more than did labor productivity between 1996 and 2014**. However, this general trend disguises significant sectoral variations, which can be grouped into four conceptual trends. **Firstly, in the agriculture and commerce sectors, large gains in labor productivity were accompanied by real wage increases and improvements in the quality of employment.** This dynamic was likely due to **a positive interplay between productivity-enhancing market developments (incorporation of new technologies, high levels of investment, exploitation of new consumer markets/agricultural frontiers) and income-enhancing institutional developments** (formalization and minimum wage valorization). In conjunction, these forces resulted in productivity gains that outpaced wage growth, leading to declining relative wages in agriculture and commerce (see Appendix A for data on relative wages).

In a second sectoral trend, the construction and real estate and other services sectors enjoyed real wage gains over the 1996-2014 period, despite stagnation in labor productivity. Both sectors offer little natural room for drastic productivity growth through the incorporation of new technologies, investments, or practices. And both were major beneficiaries of institutional interventions such as formalization and valorization of the minimum wage.14 Together, these forces resulted in a sharp rise in relative wage for construction and real estate and other services.

In a third variation of the productivity-wage relationship, both labor productivity and real wages largely stagnated or declined slightly in the industry and transportation sectors. In the case of industry, international competition likely held down wages, while productivity suffered from ongoing processes of deindustrialization. By its nature, the transportation sector offers little room for major productivity gains, while the average wage may have fallen as a result of changing forms of employment relations (i.e., increasing levels of self-employment) and increasing relative costs of transport (Chahad; Cacciamali, 2005). These dynamics explain the moderate decline in relative wages for industry and transportation.

In a fourth and final trend, the financial and information services and public services sectors saw stable or declining levels of labor productivity, accompanied by increasing or stable real wages. Productivity declines in financial and information services were due largely to changes in the Brazilian banking system over the 1998-2004 period. Earnings increases in both sectors may have resulted from persistently high returns to education, growing demand for qualified workers, and high levels of labor organization. As a result, the relative wage rose sharply for these sectors between 1996 and 2014.

It is important to note that all analyses above should be interpreted with caution, due to the difficulty inherent in estimating absolute values of labor productivity for some sectors, particularly public services and real estate. Nevertheless, the values serve to elucidate temporal dynamics of labor productivity within (if not necessarily across) sectors, revealing essential patterns in the productivity-wage relationship.

Estimation of hierarchical wage models using pooled data assessed the main structural and individual determinants of real wages over the sample period. Growth in sector- and state- level labor productivity was significantly positively associated with growth in real wages for all economic sectors from 1996 to 2012. Elasticity between labor productivity and real wages was greatest for sectors where workers’ earnings are often based directly on productivity (real estate, commerce), or where firms can easily measure employees’ productivity (industry). Elasticities appear smaller in sectors where productivity is more difficult for firms to measure, or where there are high levels of minimum wage employment (agriculture, construction) or labor organization (financial and information services).

**In general, productivity’s impact on wages was comparable to the impacts of institutional factors**, particularly worker formalization and minimum wage. Formalization, which primarily impacts labor markets through the enforcement of a minimum wage-floor, exhibited the largest impacts on sectors with high proportions of minimum wage employment. Labor organization had varied effects on wage levels. In sectors with high levels of organization, increases in union-participation exhibited a significantly positive association with wages. In contrast, increases in union-participation in less-organized sectors were negatively associated with wages, perhaps because union activity served to draw earnings away from the larger share of non-unionized workers. Nonetheless, unionization changed little over the sample period and exerted a relatively small impact on hourly wages.

**Wage growth in line with the first sectoral trend (observed in the agriculture and commerce sectors) may be the most sustainable in the long term, in the sense that increased earnings over the 1996 to 2014 period accompanied real gains in labor productivity.** In contrast, rising relative wages in the financial and information services and public services sectors highlight the capacity of labor organization, institutional protections, and skill-biased job polarization to decouple wages from productivity levels. In sum, institutional mechanisms display the capacity to substantially reallocate factor incomes toward workers, but these mechanisms face natural limitations if not accompanied by growth in labor productivity. **Thus, sustainable future wage growth in Brazil will likely depend on positive interplays between market-driven productivity gains and continued institutional interventions.**

#### That drives economic confidence – Increased productivity drives farm growth which creates a chain of investment.

**Wang et. al, 19**, “How Farmers Make Investment Decisions: Evidence from a Farmer Survey in China”, Sustainability, Shuangjin Wang 1, Yuan Tian 2,\*ORCID, Xiaowei Liu 3 and Maggie Foley 4, 1: School of Management, Tianjin University of Commerce, Tianjin 300134, China, 2: School of Economics and Management, Beijing Jiaotong University, Beijing 100044, China, 3: College of Business, St. Ambrose University, Davenport, IA 52803, USA, 4: Davis Business School, Jacksonville University, Jacksonville, FL 32211, USA, URL: <https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwii17vKue7zAhVdJjQIHUr3D7YQFnoECAUQAQ&url=https%3A%2F%2Fwww.mdpi.com%2F2071-1050%2F12%2F1%2F247%2Fpdf&usg=AOvVaw1RMvM-hGadn_uoetBxebDi>, KR

**A variety of research methods were used in previous research to study farmers’ investment adjustment behavior from different perspectives**. For example, Factor Analysis [3,7], Multinomial Logit Model [8,10,11], Deterministic Discrete Event Model [9], Mixed Logit Model with Flexible Mixing Distribution [12], Tobit Model [13,14], Probit Model [15–17], and Structural Equation Modeling [18,19].

It is widely accepted **that farmers’ investment adjustment behavior is affected by** many factors, but different literature has different opinions on key influencing factors that affect farmers’ investment behavior. Adimassu et al. [20] have found that farmers’ investments are limited by their capabilities. Okello et al. [21] have revealed that **economic benefits, such as higher yields and income, can affect farmers’ investment in seed selection.** Also, the cropped area, scale of the farmland, and agricultural income significantly influence farmers’ willingness to invest [10]. **The government’s support and favorable policies can positively promote the agriculture investment of farmers** [22,23]. Adimassu et al. [2] finds that farmers’ investment behavior is affected by five major factors: households’ resource endowments, knowledge, and experience of farming, access to information, social capital, and availability of family labor.

Moreover, some economic studies focus on specific factors that affect investment choice, such as state subsidies [24], the impact of agricultural cooperatives [25], risk preferences [26,27], the mode of communal land acquisition [28], government policies [29], and the presence of a price floor [13]. Besides, Ullah and Anad [30] examine the factors that influence the level of agricultural mechanization**: economic condition of farmers, the land tenure system, scale of farmland, cost of fuel, and the cost of renting agricultural machinery. Konrad et al. [15] have found that the scale of farm operations, environmental concerns, and innovation readiness are important for farmers’ technology investments.**

Factors such as the effect of planting structure adjustment and the output elasticity of capital can affect the investment adjustment behavior of farmers, and have been investigated by some studies. Ji et al. [31] have found that **the shortage of a labor force can be supplemented by increasing capital input**. In addition, other reasons may also lead to investment adjustment behavior such **as attitudes toward capital input [4], the amount of agricultural income [32], expected financial benefits from capital input [33], and differences in adjustment capabilities [34].**

#### Independently, union density increases productivity – long-term study proves

Ongweso 20

Edward Ongweso Jr, [Staff Writer for VICE, Tracks the political economy of Big Tech, B.A. Political Economy from Hampshire College], 29 April 2020, “Study Finds Unions Make Companies More Productive”, [https://www.vice.com/en/article/z3bjn9/study-finds-unions-make-companies-more-productive //](https://www.vice.com/en/article/z3bjn9/study-finds-unions-make-companies-more-productive%20//) AK

Researchers established a correlation between union density, wages, and productivity by first looking at how tax subsidies affect union membership. Using data collected by the Norwegian Tax Authorities and Social Services, the study examines the whole Norwegian population of workers, workplaces, and firms from 2001 to 2012. To calculate productivity, researchers relied on Statistics Norway’s Capital Data Base which provides data on value-added per worker and firm revenues, along with other production inputs, investments, and prices. In Norway, union membership fees are a tax-deductible allowance, meaning the size of the tax subsidy can affect demand for union membership and thus union density. From 2001 to 2012, the subsidy has increased over 400 percent while the average membership fee rose 150 percent, meaning the subsidy grew from 7 percent to 21 percent of the union membership fee by 2012. From here, researchers established correlations between the tax subsidy, the price and probability of union membership, union density, and the average wages paid by firms and productivity. They found that the higher the subsidy rate, the higher the rate of unionization and thus union density. The higher the union density, the higher the firm’s productivity, and the higher its workers’ wages. The study also found that not only does the subsidy rate "clearly” influence the unionization rate, but if it was kept at 2001 levels, union membership would have dropped 3 percent while firm productivity would have been 6 percentage points lower by 2012. As for why tax-subsidized union density increases productivity, the researchers highlight a few potential reasons. One is simply that unions provide a "voice" for workers that results in longer tenures, better feedback mechanisms, and incentivizes firms to invest more in workers and their workplaces with local bargaining units able to efficiently direct those resources. Another may be that tax subsidies have a greater effect on union demand at small firms with some unionization than at larger firms with either significant or no unionization. As a result, the tax subsidies may help push unionization efforts over the threshold necessary to demand a trade union agreement in Norway (10 to 25 percent). Such agreements can have a “profound influence” on a firm's policies and organization of work in ways that improve productivity. This may also be why tax-subsidized union density increases wages: researchers suggest that higher union density means greater ability to bargain over wages and this effect is most observable in high-productivity firms.

#### 2] Capital Investment; Boosting wages creates incentive to invest

**Duke, 16,** 9/2/2016, “To Raise Productivity, Let’s Raise Wages”, Center for American Progress, Brendan Duke: Princeton University; MPA in Economic Policy, Macalester; B.A. nin political science, Associate Director for Economic Policy, Senior Policy Analyst for US Congress Joint Economic Committee, URL: <https://www.americanprogress.org/issues/economy/reports/2016/09/02/142040/to-raise-productivity-lets-raise-wages/>, KR

Gordon argues that a key reason **productivity surged during this period was that rising real wages provided an incentive for firms to invest in capital, such as machinery. When labor is cheap, businesses have little incentive to invest in capital because they can always hire another worker on the cheap. But higher wages reduce the price of capital relative to labor, nudging firms to make investments and raise productivity**.

The 1929–1950 increase in wages was at first a result of several policies that directly raised workers’ wages, including the first federal minimum wage, the first federal overtime law, and the National Labor Relations Act, which made it easier for workers to join a union and bargain with their employers. The entry of the United States into World War II further drove investment higher, as the economy converted into what Gordon describes as a “maximum production regime.”

It is striking that during this period of rapid productivity growth, wages for production workers grew even faster than productivity growth did. The current debate about whether a typical worker’s compensation has kept track with the economy’s productivity typically envisions productivity growth as the precondition for wage growth. But Gordon’s research implies that the relationship can go both ways: Not only can productivity growth raise wages, **but higher real wages also can boost productivity growth—the main reason for slow gross domestic product growth—by giving firms a reason to purchase capital.**

Can higher wages raise productivity growth in 2017? Basic economic theory and common sense suggests that **an increase in the price of labor—wages—achieved through higher labor standards will cause firms to invest in more capital, raising the economy’s productivity.**

Some have tried to use this fact to claim that raising wages ultimately will hurt workers by causing them to be replaced with machines. **But automation is just another way of saying productivity growth: Robots replacing humans means more output produced using fewer human hours—the literal definition of higher productivity**. We can either have a productivity problem or an automation problem, but we cannot have both at the same time.

The sharp slowdown in productivity growth today heavily implies that **we currently have too little automation rather than too much**. At the same time, the evidence on policies that raise wages—such as the minimum wage—points to no noticeable effect on employment. Indeed, the New Deal and its rising labor standards were also a period of rapid employment growth.

A more important question is whether we have enough of the other key ingredient for the productivity growth that made the 1930s possible: innovation. Technological change itself is another reason firms purchase new capital—otherwise, investment amounts to “stacking wooden ploughs on top of wooden ploughs.” Gordon makes clear that the 1930s were in fact one of the most innovative decades in history, as the economy began to harness the potential of the internal combustion engine and electrification. **Firms ultimately could afford policies that raised wages because they could raise their productivity with new equipment featuring innovative technology.**

There exists a vigorous debate today about whether we live in a period of very ordinary or extraordinary innovation. Some—such as Gordon himself—argue that productivity growth inevitably will be slower because today’s new technology is inherently less innovative than that of the 1930s. In that case, there still exists a strong justification for raising labor standards: **Slow productivity growth makes it that much more important that its fruits be shared equitably.**

But others—including Andrew McAfee and Erik Brynjolfsson of the Massachusetts Institute of Technology, the country’s leading growth optimists—argue that we live in a period of extraordinary technological change. Even so, recent innovations—such as 3-D printing and social media—have failed to raise productivity growth, even after accounting for the possible problems with how statistics measure it. Therefore, it **may be the ability of firms to hire workers at wages that have barely grown since 2000—rather than purchasing new equipment and adopting new technology—that has prevented productivity from rising.**

The truth likely falls somewhere in between the pessimists and the optimists, with healthy—if not necessarily explosive—productivity growth possible. In that case, **policies that raise wages may be the key to unlocking productivity growth by increasing incentives for firms to invest in capital. Such wage-raising policies include making it easier for workers to bargain collectively, raising the federal minimum wage, and modernizing overtime rules**. Fortunately, the Obama administration recently has taken action on the latter and proposed an increase in the overtime threshold to $47,000 per year.

#### Increasing yield prevents food shortages and nutrient deficiencies

**Tian et al 21**-- Tian, Zhixi [principal investigator, Institute of Genetics and Developmental Biology and former research geneticist at Purdue], et al. "Designing future crops: challenges and strategies for sustainable agriculture." The Plant Journal 105.5 (2021): 1165-1178. (AG DebateDrills)

The first straightforward strategy for designing future crops that meet sustainable agriculture requirements is to improve the following aspects of current well-cultivated crops. **Increasing yield. It is estimated that the yields of major crops need to increase at a rate of 2.4% per year to meet the food supply demand by 2050. However, the current growth rates of the four major crops, maize (Zea mays), rice (Oryza sativa), wheat (Triticum aestivum), and soybeans (Glycine max), are only approximately half of this anticipated rate (Ray et al., 2013).** The development of new varieties with high yield potential that can fill this gap is the foremost mission of the Future Crops Design project. **In fact, in a trial, it was reported that a super-high-yield rice variety could produce one- to threefold more grains under optimal conditions than in normal paddy fields (Liu et al., 2020a). Improving nutritional quality.** Although the amount of food supply has been significantly improved in the last half-century, changes in human lifestyle and food consumption have resulted in a phenomenon called hidden hunger (Nair et al., 2016). For instance, in sub-Saharan Africa and America, about 17–30% of children under the age of 5 years have an inadequate daily intake of Vitamin A (Harjes et al., 2008; Haskell, 2012). **It has been reported that about two billion people are suffering from a chronic deficiency of micronutrients (WHO, 2008), a new threat to human health.** Moreover, the incidence of type-2 diabetes, obesity and colon disease has markedly increased in the past decade (Zhou et al., 2016). **Hence, the second mission of the Future Crops Design project is to generate crops with higher/balanced nutritional quality or specialized metabolites using metabolic engineering and synthetic biology approaches** (Francis et al., 2017; Martin and Li, 2017; Sweetlove et al., 2017; Vasconcelos et al., 2017). **Increasing agricultural resource use efficiency. It was reported that ~17% of arable land has lost productivity since 1945 due to inappropriate agriculture management** (Oldeman, 1994). In fact, nutrient-use efficiencies of today’s crops only reach 30–50% for nitrogen fertilizer (Cassman et al., 2002) and ~45% for phosphorus fertilizer (Smil, 2000). Moreover, fresh water has become a limiting factor for agriculture in many areas in the world. It is estimated that about 2800 km3 of fresh water per year is used for agricultural irrigation, and that crop production decreases by ~20% without irrigation (Siebert and Doll, 2010). **Therefore, to reduce agricultural inputs and environmental burdens, we should aim to develop high nutrient and water-use efficiency crops without yield penalty.**

#### Food shortages cause messed up interventions that destroy biodiversity

**Tian et al 21**-- Tian, Zhixi [principal investigator, Institute of Genetics and Developmental Biology and former research geneticist at Purdue], et al. "Designing future crops: challenges and strategies for sustainable agriculture." The Plant Journal 105.5 (2021): 1165-1178. (AG DebateDrills)

From the perspective of human evolution, each period of rapid population growth, such as during the Neolithic agricultural revolution, which began at about 8000 BC, the hydro agricultural or irrigation revolutions in the Near East, which began about 3000 BC, and the medieval and modern agricultural periods, which began about 1000 AD, benefited from an advance in agriculture (Taiz, 2013; Wallace et al., 2018). The recent rapid population growth during the past 300 years, in contrast, mainly resulted from the Industrial Revolution, which began in Britain about 1760. **The Industrial Revolution greatly increased the range of human activities and accelerated farmland expansion. In 1700, it was reported that nearly 95% of Earth’s ice-free land consisted of wildlands and semi-natural anthromes; however, by 2000, ~55% of these regions were used as arable land** (Figure 1a, data from https://ourworldindata.org/). The Industrial Revolution also gave birth to new technologies and production systems in agriculture, such as the application of larger irrigation systems, and more fertilizers and pesticides. In the 1960s, semi-dwarf wheat and rice varieties were introduced. These semi-dwarf crops exhibit beneficial characteristics, such as improved response to fertilizer input, lodging resistance and enhanced light utilization (Hedden, 2003; Wallace et al., 2018). Along with the fertilizers, pesticides and irrigation systems made possible by the Industrial Revolution, semi-dwarf crops were quickly adopted and resulted in a significant increase in total grain production globally. This big leap in agriculture was known as the ‘Green Revolution’ (Khush, 2001). Indeed, statistical data have revealed that the average daily food supply per person (in terms of calories) has doubled since the middle of the 19th century (Figure 1b, data from https://ourworld indata.org/). It is estimated that the world population will rise to more than 9 billion by 2050 (Alexandratos, 1999; Cassman, 1999), and at that time we will need at least 60% more food than is consumed by humans today. Moreover, our population will continuously increase, reaching over 11 billion by 2100 (Figure 1a, data from https://ourworldindata.org/). **How to feed the increasing population is a challenge facing the whole world** (Tilman et al., 2001; Godfray et al., 2010; Foley et al., 2011; Wallace et al., 2018). **A simple solution to feed a population of 9 billion is to constantly turn wild habitats into farmland**. However, this type of expansion is unrealistic as most of the world’s icefree and non-barren land area has been exhausted, and much of the rest is unlikely to sustain high yields (Cassman, 1999). More importantly, intact forests have been known to play essential roles in protecting the environment, such as storing fresh water, decreasing flooding and regenerating fertile soils. **Clearing of forests will result in prohibitive ecological costs, such as loss of biodiversity and greenhouse gas emissions. It was reported that, due to agriculture expansion, ~30% of all plant species will become extinct** (Taiz, 2013). The destruction of tropical forests releases about 1.1 9 1012 tons of carbon per year, which accounts for 12% of total anthropogenic CO2 emissions (Friedlingstein et al., 2010).

#### Biodiversity loss causes extinction

**Torres 16** [Phil Biologist, conservationist, science advocate & educator. 2 years based in Amazon rainforest, now exploring science around the world. “[Biodiversity Loss: An Existential Risk Comparable to Climate Change](http://futureoflife.org/2016/05/20/biodiversity-loss/)” <http://futureoflife.org/2016/05/20/biodiversity-loss/>.]

According to the Bulletin of Atomic Scientists, the two greatest existential threats to human civilization stem from climate change and nuclear weapons. Both pose clear and present dangers to the perpetuation of our species, and the increasingly dire climate situation and nuclear arsenal modernizations in the United States and Russia were the most significant reasons why the Bulletin [decided](http://thebulletin.org/press-release/doomsday-clock-hands-remain-unchanged-despite-iran-deal-and-paris-talks9122) to keep the Doomsday Clock set at three minutes before midnight earlier this year.

But there is another existential threat that the Bulletin overlooked in its Doomsday Clock announcement: biodiversity loss. This phenomenon is often identified as one of the many consequences of climate change, and this is of course correct. But **biodiversity loss is also a contributing factor behind climate change**. For example, deforestation in the Amazon rainforest and elsewhere reduces the amount of carbon dioxide removed from the atmosphere by plants, a natural process that mitigates the effects of climate change. So **the causal relation between climate change and biodiversity loss is bidirectional.**

Furthermore, there are myriad phenomena that are driving biodiversity loss in addition to climate change. Other causes include ecosystem fragmentation, invasive species, pollution, oxygen depletion caused by fertilizers running off into ponds and streams, overfishing, human overpopulation, and overconsumption. All of these phenomena have a direct impact on the health of the biosphere, and all would conceivably persist even if the problem of climate change were somehow immediately solved.

Such considerations warrant decoupling biodiversity loss from climate change, because the former has been consistently subsumed by the latter as a mere effect. Biodiversity loss is a distinct environmental crisis with its own unique syndrome of causes, consequences, and solutions—such as restoring habitats, creating protected areas (“biodiversity parks”), and practicing sustainable agriculture.

Deforestation of the Amazon rainforest decreases natural mitigation of CO2 and destroys the habitats of many endangered species.

The sixth extinction.

The repercussions of biodiversity loss are potentially as severe as those anticipated from climate change, or even a nuclear conflict. For example, according to a 2015 [study](http://www.ncbi.nlm.nih.gov/pubmed/26601195) published in Science Advances, **the best available evidence reveals “an exceptionally rapid loss of biodiversity over the last few centuries, indicating that a sixth mass extinction is already under way.”** This conclusion holds, even on the most optimistic assumptions about the background rate of species losses and the current rate of vertebrate extinctions. The group classified as “vertebrates” includes mammals, birds, reptiles, fish, and all other creatures with a backbone.

The article argues that, using its conservative figures, the average loss of vertebrate species was 100 times higher in the past century relative to the background rate of extinction. (Other scientists have suggested that the current extinction rate could be as much as 10,000 times higher than normal.) As the authors write, “The evidence is incontrovertible that recent extinction rates are unprecedented in human history and highly unusual in Earth’s history.” Perhaps the term “Big Six” should enter the popular lexicon—to add the current extinction to the previous “Big Five,” the last of which wiped out the dinosaurs 66 million years ago.

But the concept of biodiversity encompasses more than just the total number of species on the planet. It also refers to the size of different populations of species. With respect to this phenomenon, multiple studies have confirmed that wild populations around the world are dwindling and disappearing at an alarming rate. For example, the 2010 [Global Biodiversity Outlook](https://www.cbd.int/gbo3) report found that the population of wild vertebrates living in the tropics dropped by 59 percent between 1970 and 2006.

The report also found that the population of farmland birds in Europe has dropped by 50 percent since 1980; bird populations in the grasslands of North America declined by almost 40 percent between 1968 and 2003; and the population of birds in North American arid lands has fallen by almost 30 percent since the 1960s. Similarly, 42 percent of all amphibian species (a type of vertebrate that is sometimes called an “ecological indicator”) are undergoing population declines, and 23 percent of all plant species “are estimated to be threatened with extinction.” [Other studies](http://commondreams.org/views/2016/02/10/biodiversity-loss-and-doomsday-clock-invisible-disaster-almost-no-one-talking-about) have found that some 20 percent of all reptile species, 48 percent of the world’s primates, and 50 percent of freshwater turtles are threatened. Underwater, about 10 percent of all coral reefs are now dead, and another 60 percent are in danger of dying.

Consistent with these data, the 2014 [Living Planet Report](http://bit.ly/1ssxx5m) shows that the global population of wild vertebrates dropped by 52 percent in only four decades—from 1970 to 2010. While biologists often avoid projecting historical trends into the future because of the complexity of ecological systems, it’s tempting to extrapolate this figure to, say, the year 2050, which is four decades from 2010. As it happens, a 2006[study](http://science.sciencemag.org/content/314/5800/787) published in Science does precisely this: It projects past trends of marine biodiversity loss into the 21st century, concluding that, unless significant changes are made to patterns of human activity, there will be virtually no more wild-caught seafood by 2048.

48% of the world’s primates are threatened with extinction.

Catastrophic consequences for civilization.

**The consequences of this rapid pruning of the evolutionary tree of life extend beyond the obvious. There could be surprising effects of biodiversity loss that scientists are unable to fully anticipate in advance. For example, prior research has shown that localized ecosystems can undergo abrupt and irreversible shifts when they reach a tipping point.** According to a 2012 [paper](http://www.nature.com/nature/journal/v486/n7401/full/nature11018.html) published in Nature, there are reasons for thinking that we may be approaching a tipping point of this sort in the global ecosystem, beyond which the consequences could be catastrophic for civilization.

As the authors write, **a planetary-scale transition could precipitate** “substantial losses of ecosystem services required to sustain the human population.” An ecosystem service is any ecological process that benefits humanity, such as food production and crop pollination**. If the global ecosystem were to cross a tipping point and substantial ecosystem services were lost, the results could be “widespread social unrest, economic instability, and loss of human life.” According to Missouri Botanical Garden ecologist Adam Smith, one of the paper’s co-authors, this could occur in a matter of decades—far more quickly than most of the expected consequences of climate change, yet equally destructive.**

**Biodiversity loss is a “threat multiplier” that, by pushing societies to the brink of collapse, will exacerbate existing conflicts and introduce entirely new struggles between state and non-state actors.** Indeed, it could even fuel the rise of terrorism. (After all, climate change has been [linked](http://thebulletin.org/climate-change-and-syrian-uprising) to the emergence of ISIS in Syria, and multiple high-ranking US officials, such as former US Defense Secretary [Chuck Hagel](http://www.defense.gov/News-Article-View/Article/603441)and CIA director [John Brennan](http://www.cnsnews.com/news/article/cnsnewscom-staff/cia-director-cites-impact-climate-change-deeper-cause-global), have affirmed that climate change and terrorism are connected.)

The reality is that we are entering the sixth mass extinction in the 3.8-billion-year history of life on Earth, and the impact of this event could be felt by civilization “in as little as three human lifetimes,” as the aforementioned 2012 Nature paper notes. Furthermore, the widespread decline of biological populations could plausibly initiate a dramatic transformation of the global ecosystem on an even faster timescale: perhaps a single human lifetime.

The unavoidable conclusion is that **biodiversity loss constitutes an existential threat** in its own right. As such, it ought to be considered alongside climate change and nuclear weapons as one of the most significant contemporary risks to human prosperity and survival.

### Fw

#### The standard is maximizing expected wellbeing.

#### Prefer it:

#### 1] Actor specificity - every policy benefits some and harms others, which also means side constraints freeze action.

#### 2] Lexical pre-requisite: threats to bodily security preclude the ability for moral actors to effectively act upon other moral theories since they are in a constant state of crisis that inhibits the ideal moral conditions which other theories presuppose

#### 3] Only consequentialism explains degrees of wrongness—if I break a promise to meet up for lunch, that is not as bad as breaking a promise to take a dying person to the hospital. Only the consequences of breaking the promise explain why the second one is much worse than the first. Intuitions outweigh—they’re the foundational basis for any argument and theories that contradict our intuitions are most likely false even if we can’t deductively determine why.

#### 4] Use epistemic modesty for evaluating the framework debate:

#### A] Substantively true since it maximizes the probability of achieving net most moral value—beating a framework acts as mitigation to their impacts but the strength of that mitigation is contingent.

#### B] Clash—disincentives debaters from going all in for framework which means we get the ideal balance between topic ed and phil ed—it’s important to talk about contention-level offense

### Underview

#### 1] 1AR theory – a) AFF gets it because otherwise the neg can engage in infinite abuse, making debate impossible, b) reject the debater – the 1AR is too short for theory and substance so ballot implications are key to check abuse, c) no RVIs – they can stick me with 6min of answers to a short arg and make the 2AR impossible

#### 2) speccing a government is good – a) it allows more nuanced debates about the specificities within a country b) stable advocacy - anything else leads to unnecessary debates about what is a just government in whole rez

#### 3) use reasonability on 1nc theory – a) the 2nr has 6 minutes to collapse on any shell and win a risk of offense, which skews aff engagement b) this aff was open-sourced for weeks, so any inability to engage is unjustified

4) disclose interps in cx

a) friv

b) aff is skewed

5) affirming harder

a) time skew

b) multiple layers

c) generics