

Liturgy Matters: Traditional Liturgical Practices Predict Belief in the Real Presence

Natalie A. Lindemann

Belief in the Real Presence of Jesus substantially contained in the Eucharist is central to Catholicism (John 6:27–58; CCC, 1374–1375), but Catholics show declining Real Presence beliefs, possibly due to a decrease in Eucharistic-centric liturgical practices. Here, I examine how bodily and related social liturgical practices predict U.S. Catholics' Eucharistic beliefs. The results show that Catholics who receive, or see others receive, the Eucharist on the tongue and who favor reception on the tongue are more likely to believe in the Real Presence. Further, Real Presence beliefs are stronger for those whose parishes ring consecration bells and offer the Latin Mass. Returning to more Eucharistic-centric liturgical practices may bolster Catholics' Real Presence beliefs.

Belief in the Real Presence of Jesus in the Eucharist, under the appearances of bread and wine, is central to the Catholic faith (John 6:27–58; CCC, 1374–1375). However, only about 57% of U.S. Catholics believe in the Real Presence, a rate lower than reported in past decades, suggesting declining belief (Gray and Perl 2008). Several prominent thinkers have argued that Catholics' beliefs in the Real Presence have been undermined by liturgical changes surrounding and following the Second Vatican Council (e.g., Kwasniewski 2023; Von Hildebrand 1967). They argue that changes such as having the priest face *ad populum*, no longer ringing consecration bells, and receiving the Eucharist in the hand, have changed the focus of the Mass away from the Eucharist and instead towards the people, undermining belief (Foley 2024; Kwasniewski 2013, 2018, 2021, 2023). One might assume that such liturgical changes are inconsequential, that liturgy is merely a matter of preference. However, theological and empirical evidence suggest that our behavior surrounding the Eucharist may crucially affect our beliefs.

From a Catholic perspective, we know that there is a profound unity of the body and soul, that “spirit and matter, in man, are not two natures united, but rather their union forms a single nature” (CCC 365). In other words, our bodies are integral to our humanity and affect how we experience and learn about the world. St. Thomas Aquinas (ST 2.81.7 resp.) asserts that corporeal signs are necessary for religious worship because they

direct our minds to perceive the spiritual acts that unite us to God. Von Hildebrand (1967) argues that the physical beauty of the liturgy aids us in experiencing the sacred, being drawn in, and more fully participating in the Mass. When there is congruence between what the Mass is (the Holy sacrifice of Christ, made present under the species of bread and wine; CCC 1330–1419) and how it is bodily experienced, Catholics can more readily perceive its spiritual reality (Von Hildebrand 1967; Kantor 2024).

Consistent with the Catholic understanding of the integral union between body and soul, research in the psychological and cognitive sciences now recognizes the important role that the body plays in cognition. Embodied cognition theorists argue that how we move and position our bodies affects our cognitive processing of abstract concepts, prompting associated thought patterns and emotions which affect our judgments and decisions (Ackerman et al. 2010; Gibbs et al. 2004; Van Cappellen and Edwards 2021). What we think and believe affects how we move and position our bodies, and in turn, what we do with our bodies affects what we think and believe. This interplay has been demonstrated across a variety of situations (e.g., Foglia and Wilson 2013; Niedenthal et al. 2005), including religious ones (Soliman et al. 2015; Van Cappellen et al. 2021). For example, in one experiment, religious participants randomly assigned to engage in constrictive, rather than expansive, body postures agreed more with conventional religious statements (Fuller and Montgomery 2015). Another study found that religious participants assigned to kneel, rather than sit, showed a greater tendency to interpret ambiguous objects as religious and were much more likely to interpret events as miraculous (Ranson and Alicke 2013). If manipulations of body position in a brief experiment can affect religious belief and judgment, then how Catholics bodily participate in a weekly religious liturgy could affect their beliefs. For example, kneeling at an altar rail to receive the Eucharist on the tongue may induce a deeper sacred experience than standing to receive the Eucharist in the hand (Elledge 2006).

Additionally, there is a strong social aspect to human cognition. Humans are highly sensitive to social cues, which prompt implicit learning through observation and imitation (Frith and Frith 2012). Our unconscious inclination to mimic the behavior of others aids us in internalizing their beliefs and learning relevant information. For example, when others gaze towards something, we instinctively follow suit, assuming it has interest or value. In the context of parish life, powerful nonverbal learning may automatically occur by observation. When parishioners genuflect before and gaze at the tabernacle where the Eucharist is kept, others may do the same, learning that the Eucharist is important. When a priest takes his

time during the elevation of the Eucharist and bells are rung, he signals its importance. When parishioners observe that only the priest may touch the Eucharist, and they must kneel behind the altar rail to receive on the tongue, they learn that the Eucharist is special, protected, and valued. Even the architectural design of a parish communicates social information. People intuitively associate elevated and set-apart spaces as more sacred than spaces that are lower down and more accessible (Costa and Bonetti 2016). Thus, attending a parish where the tabernacle is elevated above the altar and set apart by an altar rail more clearly communicates the sacredness of the Eucharist than having the tabernacle lower down and more accessible with no altar rail. Although explicit teaching about the Real Presence is important, such non-verbal bodily and social experiences at Mass may be just as influential in forming Catholics' Eucharistic beliefs (Aždajić 2021).

LITURGICAL CHANGE AND HISTORICAL TRENDS

Historical research confirms that parishes have shifted their liturgical focus away from the Eucharist in recent decades, in favor of focusing on parishioner participation (Dugan 2018; Elledge 2006; McGuinness 2001). The most notable change was to the liturgy, with the shift from the Tridentine Mass, often called the Traditional Latin Mass (TLM), to the Novus Ordo (NO) Mass.

From a social, behavioral, and architectural perspective, the TLM is replete with Eucharistic focus (*The New Roman Missal* 1945/1993). In a parish designed for the TLM, the tabernacle is centered above the altar, behind an altar rail. All are expected to genuflect when passing the tabernacle. During the liturgy, the priest and the laity together face *ad orientem*, towards the altar and tabernacle, with the priest leading his parishioners as he offers the Mass. There is a formal atmosphere, with prescribed gestures for priests and altar servers. Precious vessels, linens, and vestments are used, consecration bells are rung reminding all to adore our Lord in the Blessed Sacrament, and the laity receives the Eucharist on the tongue while kneeling with a paten under one's chin, in case the Eucharist might fall (Foley 2024; *The New Roman Missal* 1945/1993). These bodily-experienced and socially-observed practices communicate that something holy occurs during Mass, something important and worthy of resources and attention.

In contrast, after Vatican II, once the NO Mass was implemented, most U.S. parishes removed their altar rails and, in some cases, redesigned their churches, placing the tabernacle to the side of the altar or out of view in an adjacent chapel (Manning et al. 2009). The NO permits flexibility, allowing priests to select from various liturgical options (*General Instruc-*

tion of the Roman Missal 2010). Priests are strongly encouraged to face *ad populum*, meaning their backs may be turned towards the tabernacle (*General Instruction of the Roman Missal* 2010, 299). Church décor is to be simple, and altar decorations moderate (292, 305). Movements and gestures are less prescribed, vessels and vestments are less ornate (344), and consecration bells are optional (150). The Eucharist is frequently distributed with the assistance of laypeople and placed in the hands of standing parishioners (162, 160). Parish norms vary, but the typical NO Mass fails to convey the sacredness of the Eucharist as clearly as the TLM.

Although correlational, demographic data are consistent with the proposal that these shifts in liturgical practice may have undermined Catholics' Eucharistic beliefs: the rate of Real Presence belief among U.S. Catholics is the lowest for those who grew up around the time of the Second Vatican Council, while those who grew up before Vatican II with the TLM show the highest rate of belief (Gray and Perl 2008). These demographic observations suggest that liturgical and social changes may have affected Catholics' beliefs about the Eucharist; however, they are confounded with historical and generational experiences. Lindemann (2024) more directly examined the relationship between liturgical experience and religious belief by comparing the Eucharistic beliefs of current Catholics who experience different liturgical environments. She found stronger Real Presence beliefs among Catholics who more frequently observe other parishioners genuflecting, whose parishes offer Eucharistic adoration, and a marginal trend for those whose parishes tend to ring consecration bells. Additionally, Mass-going Catholics who had ever attended the TLM tended to believe more in the Real Presence than those who had not (Lindemann 2024). However, due to a small sample size, Lindemann could not compare those who currently attend the TLM to those who attend the NO.

In the current study, I extend this previous research using a larger and more representative sample of U.S. Catholics to assess whether Catholics' liturgical experiences predict their Eucharistic beliefs.

PREDICTIONS

Eucharistic Reception Method

Receiving the Eucharist on the tongue requires receptivity: tilting back your head, sticking out your tongue, and waiting to receive, like a fledgling bird waiting to be fed (Foley 2024). This is often done while kneeling, which may induce feelings of submission and prime religious schemas, consistent with the idea of receiving Christ under the appearance of bread (Barsalou et al. 2005; Ranson and Alicke 2013). In contrast, receiving the

Eucharist in the hand is less receptive: one feeds himself the Eucharist while standing, usually quickly moving along in line; this method is less consistent with the idea that Jesus is present (Elledge 2006; Foley 2024). Given the differential messages conveyed by these reception methods, I predicted that Catholics who more often receive, and see others receive, the Eucharist on the tongue would more strongly believe in the Real Presence. Since some parishes have discouraged reception on the tongue during and after the COVID-19 pandemic (Pentin 2020), and thus rates of receiving on the tongue may currently be lower, I also asked participants whether they have ever received the Eucharist on the tongue and allowed them to comment on how Catholics receive the Eucharist. I expected that participants who preferred reception on the tongue would have stronger Real Presence beliefs.

Consecration Bells and Tabernacle Placement

Since consecration bells signal the importance of the consecration, I predicted that participants whose parishes more often ring consecration bells would report a stronger belief in the Real Presence. Also, placing the tabernacle centered and elevated above the altar in the church implies its centrality and importance. Thus, I expected participants to have stronger beliefs in the Real Presence if their parish's tabernacle is centered above the altar, rather than to the side or away in a chapel.

Latin Mass Exposure and Impressions

The TLM liturgy prescribes Eucharistic-reverent behavior, whereas the NO liturgy is less prescriptive, meaning NO parishes can vary in the extent to which they engage in Eucharistic-focused liturgical behaviors. Therefore, I expected that Catholics who attend the TLM would on average have stronger Real Presence beliefs than Catholics whose parishes only offer the NO. Further, those who describe positive impressions of the TLM were predicted to have stronger Real Presence beliefs.

Demographics

In line with previous research, I expected that Catholics who attend Mass more often would believe more in the Real Presence (Lindemann 2024; Vinea 2024).

METHOD

Participants

U.S. Catholic English-speaking adults were recruited through Prolific, an online survey company, to complete a survey. Eight hundred seventy-two people started the survey, and 860 finished it, although some participants skipped questions. Participants were paid \$12.20 an hour to complete the approximately two-minute survey. The sample was 48.8% male with a mean age of 39.3 years, 68.2% White/Caucasian, 11.0% Latino, 7.2% Asian, 3.6% Black/African American, and 10% Other/Multiracial. The ratio of men to women closely matched the U.S. adult Catholic population, but ethnicity was biased toward the overrepresentation of White, Asian, and Other ethnic groups (Gray et al. 2014). I applied a corrective weight to ensure the sample reflected the ethnic demographics of U.S. Catholic adults.¹

Materials

Participants indicated how frequently they attend Mass. Regarding their parish, they indicated the language(s) used to celebrate Mass, the tabernacle location, and how often bells are rung during the consecration of the Eucharist (1-never to 5-always; don't know). Participants reported whether they have ever received the Eucharist on their tongue (yes, no, N/A), and during the past year, how they, and others they have observed, have generally received the Eucharist (1-always in the hand to 5-always on the tongue; N/A). They had the option of commenting on how Catholics receive the Eucharist. Participants also reported whether they had ever attended a Traditional Latin Mass, and if so, could share their impressions of it.

Critically, participants selected the statement that best described their belief regarding the Eucharist using a scale from 1-“Bread and wine are symbols of Jesus; I am certain that Jesus is not really present” to 5-“I am certain that Jesus is really present in the bread and wine of the Eucharist.” This scale was modified from CARA’s dichotomous survey question (Gray and Perl 2008) to allow participants to indicate their degree of certainty regarding their Eucharistic beliefs. Participants also reported their ethnicity and political viewpoints. Further demographic information was available from Prolific, including participant sex and country of origin.

RESULTS

I conducted all analyses with and without age as a covariate. Age had no effect except in one case, which is noted below. Research assistants and I independently coded participants’ open-ended responses regarding how Catholics receive the Eucharist and their impressions of the TLM. We

had high inter-rater reliability (96%) and resolved discrepancies through discussion.

Belief in the Real Presence

Catholics' Eucharistic beliefs varied, with 31.0% being certain of the Real Presence, 23.6% being certain that the Eucharist is a symbol without Jesus being present, and the rest in-between (10.5% said Jesus is probably present, 19.2% were not sure, 15.8% said the Eucharist is probably a symbol; see Figure 1). Belief in the Real Presence, on the 5-point rating scale where 5 indicates certainty, was $M = 3.10$, $SE = 0.05$.

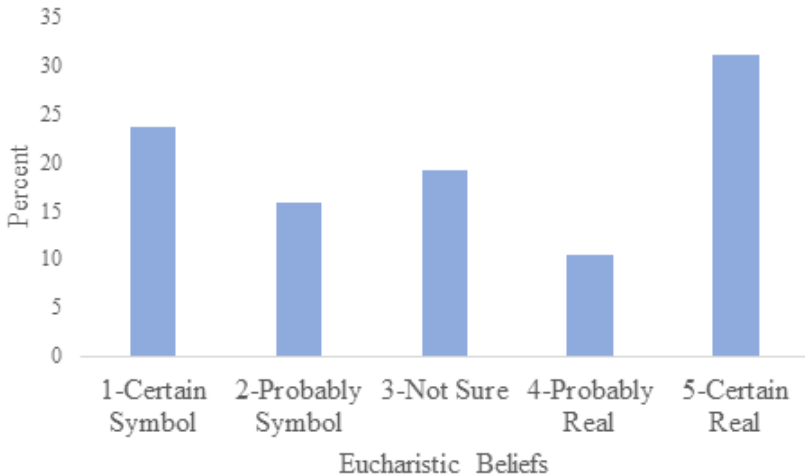


Figure 1. Eucharistic Beliefs of 860 U.S. Catholics

Reception Method

Participants who had ever received the Eucharist on the tongue believed more in the Real Presence than those who had not ($t(852) = 4.34$, $p < .001$, $d = .31$; $M_{Tongue} = 3.27$, $SE = .07$, $M_{NoTongue} = 2.79$, $SE = .08$). Those who currently more often receive on the tongue ($r(702) = .15$, $p < .001$) and who more often see others receiving on the tongue ($r(757) = .10$, $p = .005$), also reported a stronger Real Presence belief. Since most participants consistently receive the Eucharist via one method, the validity of treating *reception method* as a scale variable is questionable. Therefore, I conducted a follow-up t -test to compare those who always receive the Eucharist by one method. Corroborating the result above, those who always receive on the tongue showed a moderately higher Real Presence belief than those who always receive in the hand ($t(447) = 4.18$, $p < .001$, $d = .45$; $M_{Tongue} = 3.69$, $SE = .15$, $M_{Hand} = 3.00$, $SE = .08$; see Figure 2).

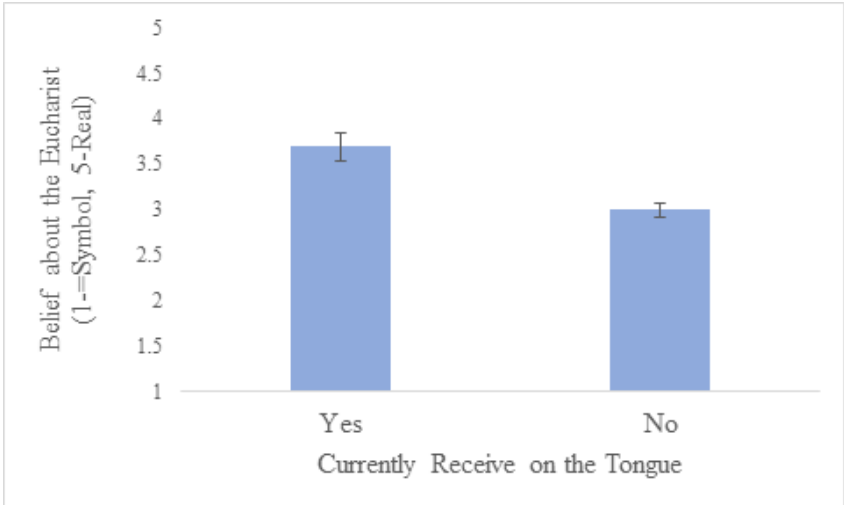


Figure 2. Catholics who Receive on the Tongue Show Stronger Real Presence Beliefs, $\pm 1\ SE$

Participants’ optional open-ended responses regarding how Catholics receive the Eucharist primarily centered on whether they believe one should: a) receive on the tongue ($n = 34$), b) receive in the hand ($n = 63$), or c) be allowed to choose how they receive ($n = 67$). Also notable, 33 participants mentioned that the COVID-19 pandemic continues to have an effect, prompting more reception in the hand. A 1-way between-subjects ANOVA showed a large effect of reception belief (tongue, hand, choice) on Eucharistic belief ($F(2,161) = 13.44, p < .001, \eta^2 = .14$; see Figure 3). Catholics who commented that one should receive the Eucharist on the tongue had a much stronger belief in the Real Presence ($M = 4.32, SE = .23$) than those who said one should receive in the hand ($M = 2.62, SE = .20$). Those who valued personal choice regarding how one receives fell in between ($M = 3.37, SE = .20$). A Tukey post-hoc test showed that each of these groups significantly differed ($ps < .019$). Those who favored reception on the tongue often mentioned reverence for the Eucharist, e.g., “While on the hand is licit, I think a return to receiving on the tongue at an altar rail would increase reverence and be a change for the better.” In contrast, those who favored reception in the hand often indicated hygienic concerns, e.g., “It’s more sanitary to receive it in your hand than on your tongue.”

Bells and Tabernacle Location

Participants whose parishes more often rang consecration bells during Mass reported stronger belief in the Real Presence ($r(777) = .22, p < .001$). Those who always (versus never) heard consecration bells showed a substantially higher rate of Real Presence belief ($t(445) = 5.03, p < .001$,

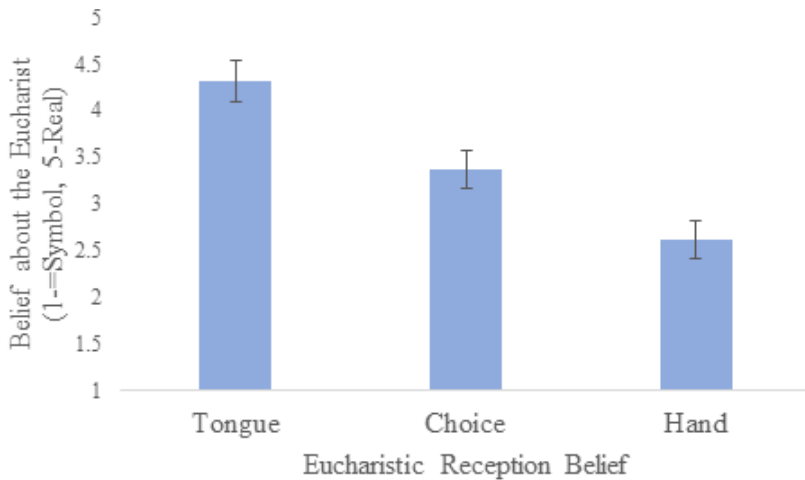


Figure 3. Catholics' Eucharistic Reception Beliefs Strongly Predict their Real Presence Beliefs. +/-1 SE

$d = .59$; $M_{\text{Bells}} = 3.43$, $SE = .08$, $M_{\text{NoBells}} = 2.53$, $SE = .16$; see Figure 4). Tabernacle location showed no relationship with Eucharistic belief ($F(2, 842) = 0.69$, $p = .50$; $M_{\text{BehindAltar}} = 3.13$, $M_{\text{SideofAltar}} = 3.21$, $M_{\text{SideChapel}} = 2.98$).

Latin Mass Exposure

Most participants reported that their parish offers Mass in English and/or Spanish. However, out of 858 responses, 90 participants reported that their

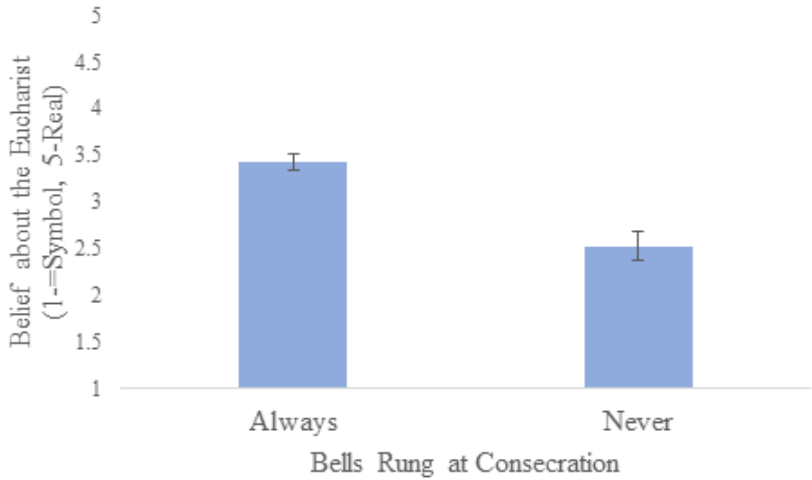


Figure 4. Higher Rate of Real Presence Belief in Catholics whose Parishes Always (vs. Never) Ring Consecration Bells. +/-1 SE

parish offers Mass in Latin (4 selected only Latin; 86 selected Latin and a vernacular language).²

Those whose parishes offer a Latin Mass (whether or not the participant has ever attended it) showed a moderately stronger belief in the Real Presence than those whose parishes do not offer a Latin Mass ($t(857) = 3.16$, $p = .002$, $d = .38$; $M_{\text{Latin}} = 3.63$, $SE = .17$, $M_{\text{NoLatin}} = 3.04$, $SE = .06$; Figure 5). The effect of the Latin Mass was more pronounced when narrowing in on those who both attend a parish that celebrates the Latin Mass and who specifically reported having attended the TLM before, compared to Catholics with no exposure to a Latin Mass ($t(857) = 2.69$, $p = .007$, $d = .49$; $M_{\text{TLM}} = 3.83$, $SE = .30$, $M_{\text{NoTLM}} = 3.07$, $SE = .05$).

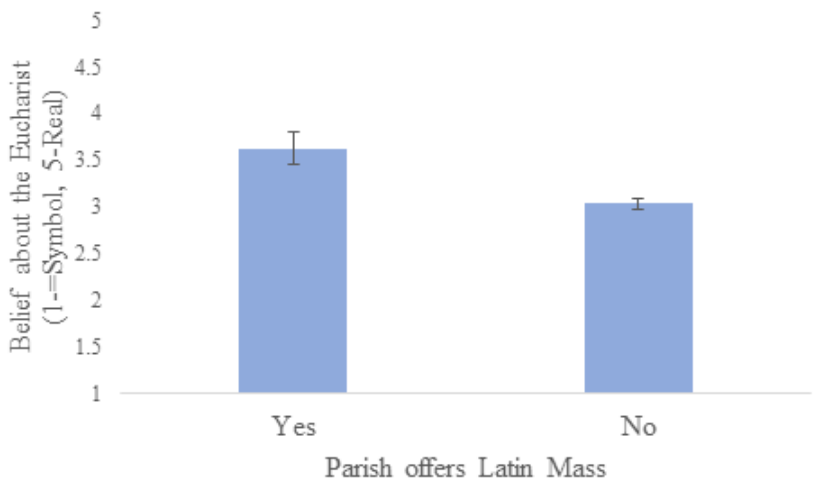


Figure 5. Higher Rate of Real Presence Belief in Catholics Whose Parishes Offer the Latin Mass. +/-1 SE

Traditional Latin Mass Impressions

Participants who had ever attended the TLM could share their impressions of it. Although 24% of participants had attended a TLM before, only 35% provided comments (i.e., 8% of the overall sample, $n = 76$). Most responses about the TLM were positive ($N = 47$; e.g., “I thought it was beautiful and caused me to be more reverent.”), while some were neutral ($N = 20$; e.g., “It was fine. I just do not like Mass that much.”), and a minority were negative ($N = 9$; e.g., “It’s hard to concentrate, too stuffy.”).³ A one-way between-subjects ANOVA with TLM impression (positive, neutral, negative) as the predictor and Real Presence belief as the outcome was marginally significant ($F(2, 73) = 2.57$, $p = .083$, $\eta^2 = .07$). There was a trend toward stronger Real Presence belief when people were more positive about

the TLM ($M_{Positive} = 3.74, SE = .24$; $M_{Neutral} = 3.60, SE = .35$; $M_{Negative} = 2.44, SE = .41$). Adding age as a covariate made the effect of TLM attitude on Real Presence belief significant ($p = .034$), but age itself did not predict Real Presence belief ($p = .722$). Catholics across the age span reported positive impressions of the TLM, with a trend towards a higher percentage of Catholics under 30 and over 60 giving positive impressions.

Mass Attendance and Demographic Predictors

Catholics who reported more frequent Mass attendance ($r(858) = .40, p < .001$) and politically conservative views ($r(858) = .21, p < .001$) had stronger Real Presence beliefs. Sex and ethnicity did not predict Eucharistic belief ($p > .18$).

GENERAL DISCUSSION

The current data support the thesis that traditional Eucharistic-focused liturgical practices predict stronger Real Presence beliefs. These results are consistent with the Catholic understanding of the unity of the body and soul (CCC 365; ST 2.81.7 resp) and current psychological research (Fuller and Montgomery 2015; Van Cappellen and Edwards 2021). How Catholics bodily experience the liturgy of the Mass and see others behaving predicts the extent to which they believe that Jesus is present in the Eucharist.

In particular, the results show that Catholics who have only ever received the Eucharist on the tongue are more likely to believe in the Real Presence than those who have only ever received in the hand. Also, Catholics who currently receive, and see others receiving, on the tongue show stronger Real Presence beliefs. These effects hold even when controlling for age, meaning generational differences do not explain them. Open-ended comments show that those in favor of Catholics receiving on the tongue (rather than in the hand) have much stronger Real Presence beliefs. They tend to feel that receiving on the tongue is a more reverent practice.

The ringing of bells during the consecration draws attention to and highlights the importance and centrality of the Eucharist to the Mass. As expected, Catholics who more often hear consecration bells during Mass show significantly stronger Real Presence beliefs, consistent with previous data (Lindemann 2024).

Contrary to prediction, tabernacle location did not predict Real Presence belief. Eucharistic belief was about the same regardless of whether one's parish tabernacle was located behind the altar, to the side of the altar, or in a side chapel. Given that spaces that are set apart are viewed as more sacred (Costa and Bonetti 2016), perhaps a better question would have been to ask participants whether their parish's tabernacle is readily acces-

sible, or less accessible, to assess whether its placement predicts Eucharist belief.

Catholics who attend a parish that offers Mass in Latin (versus those who do not) report moderately stronger belief in the Real Presence. This effect is stronger if the participant has ever attended the TLM. It seems likely that a priest who celebrates the NO Mass will incorporate more traditional Eucharistic-focused liturgical practices if he also offers the TLM at other times. Anecdotally, I once observed a NO Mass where parishioners received at an altar rail on the tongue: it was while visiting a parish that offers both the NO and TLM. Thus, even if one does not attend the TLM at their parish (instead attends the NO service), they may nevertheless participate in the more Eucharistic-focused behaviors prescribed by the TLM, which may account for stronger Real Presence belief.

Participants who had attended a TLM could share their impressions of it. The majority of responses were positive, with comments about its beauty and reverence. Those who gave positive comments tended to have stronger Real Presence beliefs.

Replicating past work (Gray and Perl 2008; Lindemann 2024; Real Presence Coalition 2024; Vinea 2024), participants who attended Mass more often showed stronger belief in the Real Presence, as did those who were more politically conservative (Lindemann 2024). No other demographic predicted Eucharistic belief.

Causality

Although the empirical evidence supports the theory that embodied practices and social cues of reverence affect Real Presence belief, causality cannot be determined. Catholics who already believe in the Real Presence may seek a parish whose liturgical behaviors better reflect the reality of the Eucharist. The data are also consistent with this idea: those indicating stronger Real Presence belief generally think it is more appropriate for Catholics to receive on the tongue and tend to give more favorable comments regarding the TLM. Consistent with embodied cognition theories, there is likely an interplay such that our bodily experiences (e.g., kneeling to receive on the tongue) affect our beliefs about the Eucharist, and in turn, our beliefs about the Eucharist affect how we bodily participate in the Mass and the type of liturgical experiences we seek out.

Limitations and Future Directions

The current data summarize the beliefs and experiences of a large, weighted sample of U.S. Catholic adults. However, the survey was only given in

English, and only to adults who take online surveys, meaning the sample imperfectly represents the U.S. Catholic adult population.

Further, since many Catholics may not be familiar with the term *Novus Ordo*, I attempted to determine liturgy type by asking participants which languages are used to celebrate Mass at their parish. I assumed that selecting Latin indicated the TLM; however, a parish could offer the NO Mass in Latin. A follow-up study could confirm the current results by asking participants specifically if their parish currently offers a Traditional Latin Mass and showing that this predicts Real Presence belief. However, given that liturgical practices such as receiving on the tongue and ringing consecration bells predict Eucharistic belief, and the TLM prescribes these practices, one should expect TLM attendance to predict Real Presence belief.

Recommendations

In sum, the results presented here suggest that Church leaders may be able to promote Real Presence belief by encouraging embodied liturgical practices that convey reverence for the Eucharist. The current data support reintroducing reception on the tongue, encouraging consecration bell use, and allowing the celebration of the TLM. To make reception on the tongue a more feasible option, parishes could reinstall altar rails or offer kneelers during Holy Communion. Although not addressed in the current study, it would likely be beneficial to have priests, rather than lay Eucharistic Ministers, give the laity the Eucharist on the tongue. This would avoid potential cognitive dissonance whereby a layperson chooses not to handle the Eucharist, but still relies on another layperson to do so. Also, having only a priest distribute the Eucharist would likely better convey a sense of Eucharistic reverence. To reintroduce consecration bells, parishes could recruit altar servers to assist during Mass.

Regarding offering the TLM, interested priests and altar servers could learn the traditional liturgy from various in-person or online training resources (e.g., *Mass of the Ages*, n.d.; *Priestly Fraternity of St. Peter*, n.d.). The Celebration of the TLM would be more straightforward to introduce in parishes where the tabernacle is placed above the altar, but parishes could rework their architecture as needed.

Previous work also shows that offering Eucharistic adoration and encouraging genuflection may promote Real Presence belief (Lindemann 2024). Parishes could set up regular adoration times, and leaders could give simple instructions on reverent genuflection. Once reverent genuflection is the norm, it will likely perpetuate among the laity, who aim to adhere to expected social behavior (Gross and Vostroknutov 2022).

Overall, these empirical recommendations are consistent with the views of practicing U.S. Catholics who advocate for restoring greater Eucharistic reverence (Real Presence Coalition 2024). A shift towards more Eucharistic-focused liturgical practices may support belief in the Real Presence while showing honor and reverence for our Lord in the Most Blessed Sacrament (Kwasniewski 2023; USCCB 2021).

Acknowledgments

Thanks to Andres Perez, Kimberly Villatora, Gabriella Perez, Christian Ortiz, and Kevin Czerny, who served as research assistants during this project. Correspondence should be addressed to Natalie A. Lindemann, William Paterson University, Department of Psychology, 300 Pompton Road, Wayne NJ 07470. Email: lindemannn@wpunj.edu.

Notes

1. Gray et al. (2014) estimate that the U.S. adult Catholic population is 58% non-Hispanic White, 34% Hispanic, 3% Black/African American, 3% Asian, and 2% other. To weight the data according to these estimates, I recategorized my sample to match Gray et al.'s categories, which required regrouping multiracial participants. If participants were both White and from a minority group, I coded them as in the minority group. For example, if someone was both Latino and White, I coded the person as Latino, since Gray et al.'s White category was specifically non-Hispanic White. If participants were from multiple minority groups, I placed them in the Other group.

2. The TLM liturgy generally includes both Latin and the vernacular. Although selecting Latin as a liturgical language most likely indicates the TLM, Latin can be used to celebrate the NO Mass, so this is not definitive (see further comments in the Discussion).

3. Participants' impressions differed significantly from an equal distribution of positive, neutral, and negative impressions regarding the TLM ($\chi^2(2, N = 76) = 30.18, p < .001$).

References

- Ackerman, J. M., C. C. Nocera, and J. A. Bargh. 2010. "Incidental Haptic Sensations Influence Social Judgments and Decisions," *Science* 328(5986): 1712–1715. <https://doi.org/10.1126/science.1189993>
- Aquinas, T. 1920. *The Summa Theologiae of St. Thomas Aquinas*, 2nd ed., trans. The Fathers of the English Dominican Province. New Advent. Available at <https://www.newadvent.org/summa/3081.htm#article7ST-II-II, q. 81, a. 7>. (Original work published 1265–1274.)

- Aždajić, D. 2021. "Externalizing Faith: Countering Individualism Through an Embodied Emphasis," *Studia Liturgica* 51(1): 86–102. <https://doi.org/10.1177/0039320720981172>
- Barsalou, L. W., A. K. Barbey, W. K. Simmons, and A. Santos. 2005. "Embodiment in Religious Knowledge," *Journal of Cognition and Culture* 5(1/2): 14–57. <https://doi.org/10.1163/1568537054068624>
- Catholic Church. 1945/1993. *Fr. Lasance New Roman Missal*. Palmdale, Calif.: Christian Book Club of America.
- Catholic Church. 2000. *Catechism of the Catholic Church*, 2nd ed. Washington, D.C.: United States Catholic Conference.
- Catholic Church. 2010. *General Instruction of the Roman Missal*, 3rd ed. Washington, D.C.: United States Catholic Conference. <https://www.usccb.org/prayer-and-worship/the-mass/general-instruction-of-the-roman-missal>.
- Costa, M., and L. Bonetti. 2016. "Geometrical Factors in the Perception of Sacredness," *Perception* 45(11): 1240–1266. <https://doi.org/10.1177/0301006616654159>
- Davidson, J. D. 2001. "Yes, Jesus Is Really There," *Commonweal* 128(17).
- Dugan, K. 2018. "#Adoration: Holy Hour Deviations and Millennial Twenty-first Century Catholic Identity," *U.S. Catholic Historian* 36(1): 103–127. <https://doi.org/10.1353/cht.2018.0005>
- Elledge, L. F. 2006. "Restoring the Altar Rail and the Tabernacle," *New Oxford Review* 73(11): 26–32.
- Foglia, L., and R. A. Wilson. 2013. "Embodied Cognition," *WIREs Cognitive Science* 4(3): 319–325. <https://doi.org/10.1002/wcs.1226>
- Foley, M. P. 2024. *Bankrupting the Banquet: Reflections on the Distribution of Holy Communion*. New Liturgical Movement, May 24. <https://www.newliturgicalmovement.org/2024/05/bankrupting-banquet-reflections-on.html>.
- Frith, C. D., and U. Frith. 2012. "Mechanisms of Social Cognition," *Annual Review of Psychology* 63: 287–313. <https://doi.org/10.1146/annurev-psych-120710-100449>
- Fuller, R. C., and D. E. Montgomery. 2015. "Body Posture and Religious Attitudes," *Archive for the Psychology of Religion* 37(3): 227–239. <https://doi.org/10.1163/15736121-12341310>
- Gibbs Jr., R. W., P. L. Costa Lima, and E. Francozo. 2004. "Metaphor Is Grounded in Embodied Experience," *Journal of Pragmatics* 36(7): 1189–1210. <https://doi.org/10.1016/j.pragma.2003.10.009>
- Gray, M., M. Gautier, and T. Gaunt. 2014. *Cultural Diversity in the Catholic Church in the United States*. Center for Applied Research in the

- Apostolate. Available at <https://richmonddiocese.org/wp-content/uploads/2015/10/2014-CARA-Report.pdf>.
- Gray, M. M., and P. M. Perl. 2008. *Sacraments Today: Belief and Practice Among US Catholics*. Center for Applied Research in the Apostolate. Available at <https://www.ltrr.arizona.edu/~katie/kt/misc/omos/0-Congregational%20Life%20Surveys/CLS/CARA-sacramentsreport.pdf>.
- Gross, J., and A. Vostroknutov. 2022. "Why Do People Follow Social Norms?," *Current Opinion in Psychology* 44: 1–6. <https://doi.org/10.1016/j.copsyc.2021.08.016>
- Kantor, F. 2024. *Eucharistic Reverence. Eucharistic Revival*. Dominicana, September 10. <https://www.dominicanajournal.org/eucharistic-reverence-eucharistic-revival/>.
- Kwasniewski, P. 2013. *On the Ringing of Bells and Other "Anachronisms."* New Liturgical Movement, November 4. <https://www.newliturgicalmovement.org/2013/11/on-ringing-of-bells-and-other.html>.
- Kwasniewski, P. 2018. *Mass "Facing The People" as Counter-Catechesis and Irreligion*. New Liturgical Movement, August 20. <https://www.newliturgicalmovement.org/2018/08/mass-facing-people-as-counter.html>.
- Kwasniewski, P. 2021. *How Liturgical "Forms" Concretely Define Religious Belief—Or Undermine It*. New Liturgical Movement, April 26. <https://www.newliturgicalmovement.org/2021/04/how-liturgical-forms-concretely-define.html>.
- Kwasniewski, P. 2023. *No Eucharistic Revival Without Restoration*. Tradition and Sanity, April 20. <https://traditionsanity.substack.com/p/no-eucharistic-revival-without-restoration>.
- Lindemann, N. A. 2024. "Parish Practices Predict Belief in the Real Presence: Genuflection, Adoration, and the Traditional Latin Mass," *Catholic Social Science Review* 29: 85–100. <https://doi.org/10.5840/cssr20242911>
- Manning, K. C., N. J. Watkins, and K. H. Anthony. 2009. "The People or the Steeple? An Examination of Sacramental Architecture Among Parishioners," *Journal of the Institute for Sacred Architecture* 16(Fall): 17–19.
- Mass of the Ages. n.d. *Latin Mass University* [online course]. <https://latinmass.getlearnworlds.com/course/celebrating-the-latin-mass>.
- McGuinness, M. M. 2001. "Night and Day: Eucharistic Adoration in the United States, 1900–1969," *U.S. Catholic Historian* 19(3): 21–34.
- Niedenthal, P. M., L. W. Barsalou, P. Winkielman, S. Krauth-Gruber, and F. Ric. 2005. "Embodiment in Attitudes, Social Perception, and Emotion," *Personality and Social Psychology Review* 9(3): 184–211. https://doi.org/10.1207/s15327957pspr0903_1

- Penton, E. 2020. *Reception-of-Communion Question Comes into Play with Spread of Coronavirus*. National Catholic Register, March 9. <https://www.ncregister.com/news/reception-of-communion-question-comes-into-play-with-spread-of-coronavirus>.
- Priestly Fraternity of St. Peter. n.d. *Extraordinary Form Workshops* [in-person and online training]. <http://www.fssptraining.org/index.html>.
- Ransom, M. R., and M. D. Alicke. 2013. "On Bended Knee: Embodiment and Religious Judgment," *Current Research in Social Psychology* 21(9).
- Real Presence Coalition. 2024. *Executive Summary of Real Presence Coalition's Survey of U.S. Lay Catholics*. <https://realpresencecoalition.com/wp-content/uploads/2024/09/Executive-Summary.pdf>.
- Revised Standard Version Catholic Edition*. 1966. Bible Gateway. <https://www.biblegateway.com/versions/Revised-Standard-Version-Catholic-Edition-RSVCE-Bible/>. (Original work published 1611.)
- Soliman, T. M., K. A. Johnson, and H. Song. 2015. "It's Not 'All In Your Head': Understanding Religion from an Embodied Cognition Perspective," *Perspectives on Psychological Science* 10: 852–864. <https://doi.org/10.1177/1745691615606373>
- United States Conference of Catholic Bishops (USCCB). 2021. *The Mystery of the Eucharist in the Life of the Church*. <https://www.usccb.org/resources/7-703%20The%20Mystery%20of%20Eucharist,%20for%20RE-UPLOAD,%20JANUARY%202022.pdf>.
- Van Cappellen, P., S. Cassidy, and R. Zhang. 2021. "Religion as an Embodied Practice; Organizing the Various Forms and Documenting the Meanings of Christian Prayer Postures," *Psychology of Religion and Spirituality* 15(2): 251–262. <https://doi.org/10.1037/rel0000412>
- Van Cappellen, P., and M. E. Edwards. 2021. "The Embodiment of Worship: Relations Among Postural, Psychological, and Physiological Aspects of Religious Practice," *Journal for the Cognitive Science of Religion* 6(1–2): 56–79. <https://doi.org/10.1558/jcsr.38683>
- Vinea Research. 2024. *Do Catholics Truly Believe in the Real Presence?* <https://www.vinearesearch.com/catholic-belief-in-the-real-presence>.
- Von Hildebrand, D. 1967. *Trojan Horse in the City of God*. Chicago: Franciscan Herald Press.

